PATENT COOPERATION TREATY

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INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

| Applicant's or agent's file reference FR920030070/PCT | FOR FURTHER ACTION See Form PCT/IPEA/416 | | | | |
|---|--|--------------------------------------|------------------|--|--|
| International application No. PCT/EP2004/052907 | International filing date (day/mod 10.11.2004 | Priority date (day) 27.11.2003 | month/year) | | |
| International Patent Classification (IPC) or national classification and IPC H04L29/06, H04L12/58 | | | | | |
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| Applicant INTERNATIONAL BUSINESS MACHINES CORPORATION | | | | | |
| This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36. | | | | | |
| 2. This REPORT consists of a total of 5 sheets, including this cover sheet. | | | | | |
| i e | and the ANNEYES comprising | | | | |
| a Cl. sent to the applicant and to the International Bureau) a total of sheets, as follows: | | | | | |
| sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions). | | | | | |
| sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the | | | | | |
| Supplemental Box. b. (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)), containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental | | | | | |
| sequence listing and/or ta Box Relating to Sequence | bles related thereto, in compute Listing (see Section 802 of the | e Administrative Instructions). | | | |
| | | | | | |
| 4. This report contains indications r | elating to the following items: | | | | |
| ☐ Box No. I Basis of the op | inion | | | | |
| ☑ Box No. II Priority | | | | | |
| 1 | | novelty, inventive step and industri | al applicability | | |
| ☐ Box No. IV Lack of unity of | f invention | | 1 1 | | |
| Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement | | | or industrial | | |
| ☐ Box No. VI Certain docum | | | • | | |
| | s in the international application | | | | |
| ☐ Box No. VIII Certain observ | ations on the international app | plication | | | |
| Date of submission of the demand | Date | e of completion of this report | | | |
| | | | | | |
| 27.09.2005 | | 02.2006 | | | |
| Name and mailing address of the International preliminary examining authority: | | norized Officer | Southern Passage | | |
| European Patent Office D-80298 Munich | | ostolescu, R | (() | | |
| D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465 | | ephone No. +49 89 2399-7950 | A PART OF SHIP | | |

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No. PCT/EP2004/052907

| _ | Box No. I | Basis of the report |
|----|------------------------|--|
| 1. | With regard | I to the language , this report is based on the international application in the language in which it was s otherwise indicated under this item. |
| | ☐ This rewich | port is based on translations from the original language into the following language, is the language of a translation furnished for the purposes of: |
| | □ nut | rnational search (under Rules 12.3 and 23.1(b)) dication of the international application (under Rule 12.4) drnational preliminary examination (under Rules 55.2 and/or 55.3) |
| 2. | have heen | d to the elements* of the international application, this report is based on (replacement sheets which furnished to the receiving Office in response to an invitation under Article 14 are referred to in this priginally filed" and are not annexed to this report): |
| | Description | ı, Pages |
| | 1-7 | as originally filed |
| | Claims, Nu | mbers |
| | 1-7 | as originally filed |
| | Drawings, | Sheets |
| | 1/2-2/2 | as originally filed |
| | □ a seq | uence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing |
| 3. | ☐ The a | mendments have resulted in the cancellation of: |
| | | e description, pages e claims, Nos. |
| | ☐ the | e drawings, sheets/figs e sequence listing <i>(specify)</i> : |
| | ☐ an | y table(s) related to sequence listing (specify): |
| 4 | had not be Suppleme | eport has been established as if (some of) the amendments annexed to this report and listed below een made, since they have been considered to go beyond the disclosure as filed, as indicated in the intal Box (Rule 70.2(c)). |
| | □ the | e description, pages e claims, Nos. |
| | □ th | e drawings, sheets/figs e sequence listing <i>(specify)</i> : y table(s) related to sequence listing <i>(specify)</i> : |
| | | tem 4 applies, some or all of these sheets may be marked "superseded." |

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

| _ | | |
|----|-----|--|
| | Box | No. II Priority |
| 1. | Ø | This report has been established as if no priority had been claimed due to the failure to furnish within the prescribed time limit the requested: |
| | | □ copy of the earlier application whose priority has been claimed (Rule 66.7(a)). |
| | | translation of the earlier application whose priority has been claimed (Rule 66.7(b)). |
| 2. | | This report has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rule 64.1). Thus for the purposes of this report, the international filing date indicated above is considered to be the relevant date. |
| 3. | Add | litional observations, if necessary: |
| | | |
| | | |

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)

Yes: Claims
1-7

No: Claims

1-7

No: Claims
1-7

No: Claims
1-7

Industrial applicability (IA) Yes: Claims 1-7
No: Claims

2. Citations and explanations (Rule 70.7):

see separate sheet

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (SEPARATE SHEET)

Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

Reference is made to the following documents:

D1: US 2003/101339 A1 (BIANCHINI PAOLO ET AL) 29 May 2003 (2003-05-29)

D2: US 2003/167314 A1 (GILBERT MARTYN ET AL) 4 September 2003 (2003-09-04)

Subject-matter:

The present application relates to a system (claim 1) and to a method (claim 4) for enhancing the security of the e-mails transmitted from a sender to a receiver.

Prior art:

The closest prior art was found in document D1 (see in particular abstract). This document relates to a method and system for transmitting sensitive information over a network.

Differences (Article 33 (2) PCT):

The difference between the independent claims of the present application and the prior art resides mainly in the specific concepts of the Message Transfer Agent (MTA) splitter and MTA assembly agent.

Problem:

The objective problem solved by the above-identified difference is to improve security for e-mail transmissions.

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Inventive step (Article 33 (3) PCT):

The independent claims solve a technical problem in a way (MTA splitter divides the e-mail into a plurality of chunks according to a predetermined algorithm and a predetermined list of relay MTAs to which are forwarded said chunks, and the assembly agent reassembled said received chunks using said predetermined algorithm), which is not disclosed or suggested in the prior art (D1 and D2), and therefore they are considered to be inventive.